

Listing of Claims

1 to 24. CANCELLED

25. (NEW) A fiber distribution frame comprising:

(a) a rack extending vertically from a bottom to a top, the rack defining a left side, a right side, a front, and a rear panel;

(b) a left vertical cable guide with a side access, the left vertical cable guide positioned on the left side of the rack, and a right vertical cable guide with a side access, the right vertical cable guide positioned on the right side of the rack;

(c) a cable termination area positioned on the rack including:

(1) a first housing mounted to the rear panel of the rack, the first housing defining an array of termination locations on a front panel of the first housing, the first housing positioned on the left side of the rack adjacent to the left vertical cable guide, each array including a plurality of rows and columns of the termination locations;

(2) a second housing mounted to the rear panel of the rack, the second housing defining an array of termination locations on a front panel of the second housing, the second housing positioned on the right side of the rack adjacent to the right vertical cable guide, each array including a plurality of rows and columns of the termination locations;

(3) a central cable passageway between the first and second housings accessible from the front of the rack, the central passageway including a plurality of cable guides mounted to the rear panel of the rack;

(4) side cable passageways from the central cable passageway to access an area behind each of the front panels of the first and second housings;

(d) a cable splice area positioned on the rack and mounted to the rear panel of the rack, the lower cable splice area defining a plurality of splice tray holders;

(e) a cable passageway from the splice tray holders to the central cable passageway of the first and second housings, and aligned with the central cable passageway between the first and second housings;

(f) a horizontal passageway positioned on the rack extending between the right vertical cable guide, and the left vertical cable guide.

26. (NEW) The frame of claim 25, wherein the front panel of the first housing and the front panel of the second housing are each positioned at a non-perpendicular angle relative to a vertical plane defined by the front of the rack, the front panel of the first housing angled toward the left side of the rack, the front panel of the second housing angled toward the right side of the rack.

27. (NEW) The frame of claim 25, wherein the first housing includes a first vertical array of extensions positioned adjacent to the side access of the left vertical cable guide, and wherein the second housing includes a second vertical array of extensions positioned adjacent to the side access of the right vertical cable guide, an extension in each of the first and second vertical arrays of extensions being provided for each row of termination locations of the respective first and second housings.

28. (NEW) The frame of claim 25, wherein the splice tray holder includes a plurality of spaced apart angled divider walls each sized to receive a splice tray.

29. (NEW) The frame of claim 25, further comprising a cable storage device extending vertically and mounted to the rack, the cable storage device including at least two cable storage spools extending in the direction faced by the front of the rack, wherein the cable storage device can communicate with the horizontal passageway for passage of a cable.

30. (NEW) The frame of claim 25, wherein at least one of the first and second housings is a termination module mounted to the rear panel of the rack, each termination module including:
a module housing having first and second spaced-apart ends, and first and second spaced-apart sides extending between the ends, the module housing including a rear extending between the first and second ends and the first and second sides to define an interior, the module housing defining an open front, with the first and second ends extending horizontally, the first and second sides extending generally vertically; and,

the front panel mounted to the open front of the module housing, an array of openings in the front panel arranged and sized for holding adapters to define the termination locations, the adapters being sized for mounting to cable connectors.

31. (NEW) The frame of claim 30, wherein the front panel is positioned at a non-perpendicular angle relative to the first and second sides.

32. (NEW) The frame of claim 30, wherein the first housing includes a first vertical array of guides positioned adjacent to the side access of the left vertical cable guide, and wherein the second housing includes a second vertical array of guides positioned adjacent to the side access of the right vertical cable guide, a guide in each of the first and second vertical arrays of guides being provided for each row of termination locations of the respective first and second housings.

33. (NEW) The frame of claim 30, wherein the front panel includes a plurality of sub-panels mounted so as to close the open front of the module housing, each sub-panel including at least one opening arranged and sized for holding at least one adapter to define the termination locations.

34. (NEW) The frame of claim 33, wherein the module housing includes a plurality of sub-panel holders, and wherein each of the sub-panels further include a plurality of front adapters and a module rear housing, each module rear housing including a module side panel including a plurality of adapters, a fiber optic coupler mounted within the module rear housing, and cables connecting the front adapters to the side adapters.

35. (NEW) The frame of claim 34, wherein the sub-panels each include a longitudinal guide, and wherein the sub-panel holders include a vertical array of longitudinal rails for receiving the longitudinal guides.

36. (NEW) The frame of claim 35, wherein the sub-panels each include a second longitudinal guide, wherein the open front of the module housing includes a vertical array of notches opposite to the longitudinal rails for receiving the second longitudinal guides.

37. (NEW) The frame of claim 36, wherein at least one sub-panel includes a plurality of rows and columns of front adapters.
38. (NEW) The frame of claim 34, wherein the sub-panel holders include a vertical array of planar shelves.
39. (NEW) The frame of claim 38, wherein the sub-panels each include a longitudinal guide, and wherein the open front of the module housing includes a vertical array of notches opposite to the planar shelves for receiving the longitudinal guides.
40. (NEW) The frame of claim 34, further comprising an angled retainer mounting the adapters to the sub-panels.
41. (NEW) The frame of claim 40, wherein at least one sub-panel includes a plurality of rows and columns of termination locations.
42. (NEW) The frame of claim 25, further comprising a plurality of adapters, each adapter mounted to one of the first and second housings.
43. (NEW) The frame of claim 42, further comprising an angled retainer mounting the adapters to the respective first and second housings.
44. (NEW) A fiber distribution frame comprising:
 (a) a rack extending vertically from a bottom to a top, the rack defining a left side, a right side, a front, and a rear;
 (b) a left vertical cable guide with a side access, the left vertical cable guide positioned on the left side of the rack, and a right vertical cable guide with a side access, the right vertical cable guide positioned on the right side of the rack;
 (c) an upper cable termination area positioned on the rack including:

(1) a first panel defining an array of termination locations on a front portion and on a rear portion of the first panel, the first panel positioned on the left side of the rack adjacent to the left vertical cable guide, each array including a plurality of rows and columns of the termination locations;

(2) a second panel defining an array of termination locations on a front portion and on a rear portion of the second panel, the second panel positioned on the right side of the rack adjacent to the right vertical cable guide, each array including a plurality of rows and columns of the termination locations;

(3) a central cable passageway between the first and second panels accessible from the front of the rack;

(4) side cable passageways from the central cable passageway to access an area between the rear of the rack and the rear portions of the first and second panels;

(d) a lower cable splice area positioned on the rack adjacent one of the left side or the right side and beneath one of the first or second panels, the lower cable splice area defining a plurality of splice tray holders;

(e) a lower cable management area positioned opposite the lower cable splice area adjacent the other of the left or right side and beneath the other of the first or second panels, the lower cable management area including a plurality of cable storage spools extending in the direction faced by the front of the rack;

(f) a lower cable passageway between the lower cable splice area and the lower cable management area cooperating with the central cable passageway between the first and second panels;

(g) a horizontal passageway positioned on the rack extending between the right vertical cable guide, and the left vertical cable guide.

45. (NEW) The frame of claim 44, wherein the first panel and the second panel are each positioned at a non-perpendicular angle relative to a vertical plane defined by the front of the rack, the first panel angled toward the left side of the rack, the second panel angled toward the right side of the rack.

46. (NEW) The frame of claim 44, wherein the first panel includes a first vertical array of extensions positioned adjacent to the side access of the left vertical cable guide, and wherein the second panel includes a second vertical array of extensions positioned adjacent to the side access of the right vertical cable guide, an extension in each of the first and second vertical arrays of extensions being provided for each row of termination locations of the respective first and second panels.
47. (NEW) The frame of claim 44, wherein the splice tray holder includes a plurality of spaced apart angled divider walls each sized to receive a splice tray.
48. (NEW) The frame of claim 44, wherein the lower cable management area can communicate with the horizontal passageway for passage of a cable.
49. (NEW) The frame of claim 44, wherein at least one of the first and second panels is defined by at least one termination module mounted to the rack, each termination module including:
a housing having first and second spaced-apart ends, and first and second spaced-apart sides extending between the ends, the housing including a rear extending between the first and second ends and the first and second sides to define an interior, the housing defining an open front, with the first and second ends extending horizontally, the first and second sides extending generally vertically;
a main panel mounted to the open front, the main panel including an array of openings arranged and sized for holding adapters to define the termination locations, the adapters being sized for mounting to cable connectors.
50. (NEW) The frame of claim 49, wherein the main panel is positioned at a non-perpendicular angle relative to the first and second sides.
51. (NEW) The frame of claim 49, wherein the first panel includes a first vertical array of guides positioned adjacent to the side access of the left vertical cable guide, and wherein the second panel includes a second vertical array of guides positioned adjacent to the side access of

the right vertical cable guide, a guide in each of the first and second vertical arrays of guides being provided for each row of termination locations of the respective first and second panels.

52. (NEW) The frame of claim 49, wherein the main panel includes a plurality of sub-panels mounted so as to close the open front, each sub-panel including at least one opening arranged and sized for holding at least one adapter to define the termination locations.

53. (NEW) The frame of claim 52, wherein the housing includes a plurality of sub-panel holders, and wherein each of the sub-panels further include a plurality of front adapters and a rear housing, each rear housing including a side panel including a plurality of adapters, a fiber optic coupler mounted within the rear housing, and cables connecting the front adapters to the side adapters.

54. (NEW) The frame of claim 53, wherein the sub-panels each include a longitudinal guide, and wherein the sub-panel holders include a vertical array of longitudinal rails for receiving the longitudinal guides.

55. (NEW) The frame of claim 54, wherein the sub-panels each include a second longitudinal guide, wherein the open front of the housing includes a vertical array of notches opposite to the longitudinal rails for receiving the second longitudinal guides.

56. (NEW) The frame of claim 55, wherein at least one sub-panel includes a plurality of rows and columns of front adapters.

57. (NEW) The frame of claim 53, wherein the sub-panel holders include a vertical array of planar shelves.

58. (NEW) The frame of claim 57, wherein the sub-panels each include a longitudinal guide, and wherein the open front of the housing includes a vertical array of notches opposite to the planar shelves for receiving the longitudinal guides.

59. (NEW) The frame of claim 53, further comprising an angled retainer mounting the adapters to the sub-panels.
60. (NEW) The frame of claim 59, wherein at least one sub-panel includes a plurality of rows and columns of termination locations.
61. (NEW) The frame of claim 44, further comprising a plurality of adapters, each adapter mounted to one of the first and second panels.
62. (NEW) The frame of claim 61, further comprising an angled retainer mounting the adapters to the respective first and second panels.